

30(1)

SOV/99-59-2-6/12

AUTHOR: Lobochikhin, V.M., Engineer

TITLE: Experimental Data on the Planning, Construction, and Maintenance of Drilled Artesian Wells With a Water-Yielding Crater Instead of a Filter (Opyt proyektirovaniya, stroitel'stva i ekspluatatsii artezianskikh burovykh kolodtsev s vodopriyemnoy voronkoy vmesto fil'tra)

PERIODICAL: Gidrotekhnika i melioratsiya, 1959, Nr 2, pp 31-39 (USSR)

ABSTRACT: The author stresses the superiority of artesian wells with water-yielding craters over those equipped with filters. Every year, more than 500 artesian wells are drilled in the Voronezhskaya, Kurskaya, Belgorodskaya, and Lipetskaya oblasti, of which some 50% are equipped with screen filters. As they have a very short service life due to corrosion, clogging, and shortage of spare filters, an improved type of artesian well with water-yielding craters, is making fast progress. The

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SOV/99-59-2-6/12

Experimental Data on the Planning, Construction, and Maintenance of Drilled Artesian Wells With a Water-Yielding Crater Instead of a Filter

best conditions under which they may be drilled are the following: 1) the top of the water-bearing sand must consist of crumble-proof rock; 2) the water-bearing stratum must have a minimum pressure of 15 m. In addition, the new wells have the following good points: 1) on the average, construction costs are down 200%; 2) the saving in metal for casing pipes comes to 300%; 3) drilling is carried out 300-400% faster. There are 5 diagrams and 3 tables.

ASSOCIATION: Voronezhskaya ekspeditsiya "Rosgiprovodkhoz" (The Voronezh Expedition "Rosgiprovodkhoz")

Card 2/2

LOBOCHIKHIN, V.M.

Water supply on livestock farms of the Central Black Earth
Region. Vod.i san.tekh. no.3:17-21 Mr '60. (MIRA 13:6)

(Central Black Earth Region--Water supply, Rural)

LOBOD, K.M.

NOSIKOV, Zinoviy Alekseyevich; MARTSENYUK, Ya.P. redaktor; SVESHNIKOV, O.A.,
kandidat arkhitektury, redaktor; LOBOD, K.M., inzhener, redaktor;
ZELENKOVA, Ye.Ye., tekhnicheskij redaktor

[Carpenter's and joiner's work] Plotnichnye i stoliarnye raboty.
Kiev, Izd-vo Akademii arkhitektury USSR, 1955. 349 p.
(Carpentry) (MIRA 9:1)

RODIONOV, V.M.; CHUDINOVSKIKH, A.V.; ANTOKOL'SKAYA, Zh.A.; LOBOD, L.A.

Inclusion of S^{35} -methionine into blood proteins in irradiated animals following blood loss. Biul. eksp. biol. i med. 47
no.6:43-47 Je '59. (MIRA 12:8)

1. Iz Instituta biologicheskoy i meditsinskoy khimii (dir. -
deystvitel'nyy chlen AMN SSSR V.N.Orekhovich) AMN SSSR, Moskva.
Predstavlena deystvitel'nyy chlenom AMN SSSR V.N.Orekhovichem.

(METHIONINE, in blood,

blood protein uptake of radiosodium-labeled
methionine in x-irradiated animals after hemorrh.
(Rus))

(HEMORRHAGE, exper.
same)

(BLOOD PROTEINS,
same)

(ROENTGEN RAYS, eff.
same)

RODIONOV, N.F.; LOBODA, A.I.

Study of dust in the air during the operation of excavators.

Sbor.nauch.trud.Kriv.fil.IGD AN URSR no.1:171-175 '62.

(MIRA 16:4)

(Mine dusts)

(Excavating machinery)

SHESTAKOV, M.M., inzh.; MIKHAYLOV, V.A., kand. tekhn. nauk;
LOBODA, A.I., inzh.; RODIONOV, N.F., inzh.

Construction and operation of automobile roads in Krivoy
Rog Basin open-cut mines. Met. i gornorud. prom. no.5:
61-64 S-0 '63. (MIRA 16:11)

1. Tsentral'nyy gornoobogatitel'nyy kombinat, Krivoy Rog
(for Shestakov). 2. Krivomozhskiy filial Instituta gornogo
dela AN UkrSSR (for Mikhaylov, Loboda, Rodionov).

LOBODA, A.S.

PHASE I BOOK EXPLOITATION 827/3559

Akademiya nauki SSSR. Institut metallurgii. Nauchnyy sovet po problemam zharko-
prochnosti sployov
Izvestiya po zharkochnym splavam, t. 5 (Investigations of Heat-Resistant
Alloys, Vol. 5). Moscow, Izd-vo AN SSSR, 1959. 423 p. Errata slip inserted.
2,000 copies printed.

Ed. of Publishing House: V.A. Klimov; Tech. Ed.: I.P. Kur'mina; Editorial
Board: I.P. Bardin, Academician, G.V. Kur'yakov, Academician, N. V. Agayev,
Corresponding Member, USSR Academy of Sciences (Inst. M.I.), Z.M. Oshin,
I.M. Pavlov, and I.F. Zudin, Candidates of Technical Sciences.

PURPOSE: This book is intended for metallurgical engineers, research workers
in metallurgy, and may also be of interest to students of advanced courses
in metallurgy.

CONTENTS: This book, consisting of a number of papers, deals with the proper-
ties of heat-resisting metals and alloys. Each of the papers is devoted to
the study of the factors which affect the properties and behavior of steels.
The effects of various elements such as Cr, Mo, and V on the heat-resisting
properties of various alloys are studied. Deformability and workability
of certain metals as related to the thermal conditions are the object of
another study described. The problems of hydrogen embrittlement, diffusion
and the deposition of ceramic coatings on steel surfaces by means of
electroplating are examined. One paper describes the apparatus and methods
used for growing monocrystals of metals. Boron-base steels are especially
examined and evaluated. Results are given of studies of the mechanical behavior
and the behavior of atoms in metal. Tests of turbine and compressor blades are
described. No personalities are mentioned. References accompany most
of the articles.

Serfatikh, I.G., and K.V. Popov. Study of Certain Problems of the Temper-
ture Dependence of the Plasticity of Steel From the Viewpoint of the Disloca-
tion Theory 190

Gruzia, P.L., L.V. Pavlinov, A.M. Druzyumak (Deceased), and G.B. Fedorov 195

Fedorov-Lentkov, G.P., M.P. Shestakov, R.S. Kaplan, N.A. Borko, and I.S.
Karinenko. Investigation of the Properties of XI 75b Steel 160

Fedorov-Lentkov, G.P., F.I. Pankovskiy, and N.I. Solonovitsa. Cast Austenitic
Steels for Service at Temperatures of 650°-700°C 166

Lipovskiy, I.M., M.A. Pilyonov, A.V. Kravchenkov, A.I. Kuznetsov, S.A. Iokhiznikiy,
M.I. Zolotarev, B.I. Zhuravskiy, Y.K. Novitskiy, and N.A. Samokhin. Heat-
Resistant Alloy for Automotive and Stationary Gas Turbines 173

Kinta, R.S. The Effect of Elements of Groups IV to VIII of the Periodic Table 179
on the Properties of Phase IIIa

Kulakovskiy, S.I. The Effect of Hardness and Grain Size on the Thermal Fatigue
of Heat-Resistant Steel 187

Portnov, K.I., and G.V. Sasunov. Study of Ferrite-Base Materials 192

Arbuzov, P.M. Study of Phase Composition of the Diffusion Layer 199

Agayev, B.A. On the Theory of Recovery and Complex Alloying of Steels 203

Kobandit, Ya.A., I.G. Glimbovich, I.K. Pilyuk, G.P. Koshalov, N.I. Anisimov,
I.V. Uryayev, and A.Ya. Ioffe. Stability of Heat-Resisting Alloys 210

Molnar, B.I., and A.M. Skogolnikov. Metallurgical Problems in Electroslag
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Fallon, B.L., B.L. Melnyk, and N.V. Vlasov. Improvement of Quality and Work-
ability of Alloyed Steels and Alloys by Means of Electroslag Remelting in
Water-Cooled Metal Pots 228

Kubitskiy, B.E. The Effect of Small Amounts of Addition Agents on the
Property of Nickel-Base Alloys 234

Chistilov, B.M., and A.M. Grifin. The Formation and Dissociation of Niobium
Oxides 240

Pavlov, I.M. Forming of Hard-to-Form Alloys 245

Rastegayev, M.V., and A.N. Semil'chenko. Specific Information Work [per
Title of Volume] of Certain Alloys 255

Kozlov, A.V., and A.M. Smolin. Mechanical Properties of Deformed Chromium
Alloys, N.I. Lugovskiy, S.B. Pevzner, and Ye.I. Babitskiy. Thermo-
mechanical Regime of Forming High-Melting Poly(bismuth) and Chromium-
Base Alloys 260

LOBODA, A.S.

СЛЮТКИ И СВОЙСТВА СТАЛИ

Д.Ф.Черного	Исследована область электрохимического обжига дробильной части слитков выплавленного электродами на проводнике подпора в газовой атмосфере.
И.С.Прохоров Л.М.Кузнецов	Рассредоточено металлохимическое взаимодействие в слитках ковчегной стали.
Ю.А.Николаев Н.Г.Гаринский И.В.Васильев	Изучены закономерности металлохимического взаимодействия в ковчегной стали.
В.Г.Гурьев	Структурно-фазовые изменения в зависимости от температурного цикла медной стали.
С.А.Ивановский И.К.Николаев А.С.Лобода	Влияние температуры слитка на качество слитка по сравнению со слитком из жидкой ванны.
В.Г.Кузнецов С.А.Гурьев	Поведение электролитической ванны в слитке ковчегной стали.
В.М.Тареев Ю.Д.Смирнов	О влиянии диаметра и скорости вращения электролитической ванны на качество слитка в процессе кристаллизации стали.
В.М.Тареев Ю.Д.Смирнов	Влияние диаметра ванны при кристаллизации стали на качество слитка и структуру.
А.И.Морозов В.С.Розенберг	Механизм образования слитка в ковчеге и слитка ковчегной стали.
Ю.А.Николаев В.П.Калашников	Получены данные о влиянии температуры на качество слитка при электрохимическом обжиге.

Report submitted for the 5th Physical Chemical Conference on Steel Production, Moscow-- 30 Jun 1959.

IODKOVSKIY, S.A., kand.tekhn.nauk; LOBODA, A.S., inzh.

Effect of calcium on the plastic properties of the EI765 alloys.
Metalloved. i term. obr. met. no.6:57-59 Je '61. (MIRA 14:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii
mashinostroyeniya.

(Nickel alloys--Metallography)
(Plasticity)

S/765/61/000/000/002/003

AUTHORS: Iodkovskiy, S. A., Novitskiy, V. K., Loboda, A. S., Burylichev, G. I.,
Kudel'kin, V. P., Topilin, V. V., Shirayayev, N. A., Molev, D. S.

TITLE: The effect of the wall thickness of the mold on the quality of nickel-base-
alloy castings.

SOURCE: Slitok i svoystva stali; trudy V konferentsii po fiziko-khimicheskim
osnovam proizvodstva stali. Moscow, Izd-vo AN SSSR, 1961, 47-60.

TEXT: The paper describes an experimental investigation intended to improve
the quality of large-size gas-turbine components. The investigation is concerned
with the fundamental defect of highly alloyed Ni-alloy castings, poured into ordinary
molds with a vertical taper of 5% and a b/r ratio of 0.55-0.75, namely the presence
of internal fissures of thermal origin. The investigation is directed toward the
elimination of one of the two possible causes of internal fissures, namely, the
stresses which arise as a result of the great difference in temperature (T) along the
cross-section of the casting during solidification and cooling. To counteract this
effect, the T gradient along the cross-section of the casting must be reduced.
Practical means for this purpose include either the reduction of the heat capacity
and the heat conductivity of the mold material, the heat rejection of the external

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The effect of the wall thickness of the mold

S/765/61/000/000/002/003

surface of the mold, or a change of the mass of the mold itself (through the use of molds with a reduced wall thickness). It was found that, for castings of the weight range investigated (50-150 kg), the principal factor that determines the rates of their solidification and cooling appears to be the mass of the mold itself. The thinner mold heats up more rapidly than the ordinary thicker mold, and the T gradients are substantially reduced. The investigation also covered the effect of an external thermal insulation layer applied to an ordinary and a thin-walled mold on the macrostructure of the castings and on their rate of cooling. A decrease of the wall thickness of a mold to a b/r ratio of less than 0.30 results in a significant decrease of the mass of the mold, a reduction of the rate of solidification of the casting, a reduction in the T difference between the periphery and the axis of the ingot, and, as an ultimate consequence, in an absence in the casting of any internal thermal fissures. There is no appreciable change in macrostructure, but a casting poured into a thin-walled and thermally-insulated mold is completely free of internal fissures. The experimental thin-walled molds were used in actual production in the pouring of highly-alloyed Ni alloys in castings of 500, 700, and 750 kg, and resulted in the elimination of internal fissures and in a reduction of the number of low-grade rejects as identified by ultrasonic inspection. There are 7 figures and 2 tables; no references.

Card 2/2

L 124114-65 EWT(m)/EPF(n)-2/EWA(d)/EWP(t)/EPR/EPF(k)/EWP(b) Pf-4/Pad/
Ps-4/Pu-4 JD/HJ/JG/MLK
ACCESSION NR: AT4046844 S/0000/64/000/000/0209/0215

8

AUTHOR: Iodovskiy, S.A., Kudel'kin, V.P., Loboda, A.S.

TITLE: Effect of calcium on the plasticity of nickel alloys

SOURCE: AN SSSR. Nauchnyy sovet po probleme zharoprochnykh splavov, Issledovaniya staley i splavov (Studies on steels and alloys). Moscow. Izd-vo Nauka, 1964, 209-215

TOPIC TAGS: nickel alloy, nickel alloy plasticity, alloy plasticity, calcium admixture, arc furnace, induction furnace

ABSTRACT: It is very difficult to deform heat-resistant alloys on a nickel base with tungsten, molybdenum, aluminum and titanium as alloying elements. Even precise batching does not always result in stable plastic properties of the melts in arc furnaces. However, in induction furnaces, the melts have improved and more stable properties. Investigations have shown that the calcium content differs in these melts. In melts from induction furnaces, the calcium content varies from 0.005 to 0.012%, while in melts from arc furnaces it varies between 0.013 and 0.018%, even reaching 0.020%. The higher calcium content obtained in the arc furnace is explained by the reduction of

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L 12414-55

ACCESSION NR: AT4046844

calcium oxide from the slag by aluminum or ionized carbon at the arc. Several articles have been published recently on the effect of small additions of rare earth and alkaline earth elements. After a certain limit, an increase in the concentration of these elements weakens the grain boundaries. In the present study, test melts were made in arc and induction furnaces with the addition of 0.01 - 0.2% calcium. In the first series, the calcium was added directly to the ladle before pouring. These tests showed that the Ni alloys were forged properly only when the residual calcium content did not exceed 0.015%. In the second series, the calcium was added to the furnace. The forging capacity of the metal improved as the calcium was burnt out and the final calcium content usually did not exceed 0.015%. The curves in Fig. 1 of the Enclosure show that increasing the calcium content to 0.1-0.2% increased the impact toughness, with a maximum at 1050-1200C. In a laboratory arc furnace of 0.5 ton capacity, the introduced calcium resulted in a 0.03% Ca content with a low plasticity of the alloy. During induction melting of the arc furnace melt, the content of alloying elements did not change due to additional charging, but the Ca content was lowered from 0.018-0.020 to 0.012-0.014%. The article concludes that an increase of the residual calcium in

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L 12/14-65

0

ACCESSION NR: AT404044

Ni alloys above 0.015% leads to lower plastic properties. Part of this Ca can be burnt out in induction furnaces. Introduction of 0.1% Ca with subsequent burning out leads to better plastic properties. The best Ni alloys are therefore obtained in induction furnaces, not in arc furnaces. Orig art. has: 3 figures, 4 tables and 3 formulas.

ASSOCIATION: None

SUBMITTED: 16Jun64

ENCL: 01

SUB CODE: MM

NO REF SOV: 000

OTHER: 001

Card 3/4

VOINOV, Ye.A. (Kiyov, Vorovskogo 31a, kv.17); NEKRASOV, P.Ya.; ISHCHENKO,
M.P.; LOBCDA, I.P.

X-ray, radio and surgical method for treating internally or ex-
ternally located cancer. Klin. khir. no.3:12-18 '65.
(MIRA 18:8)

1. Radio-khirurgicheskiy otdel (zav. - zasluzhennyy deyatel' nauki,
prof. I.T.Shevchenko) Kiyevskogo nauchno-issledovatel'skogo rentgeno-
radiologicheskogo i onkologicheskogo instituta.

LOBODA, I. P., aspirant

Two observations of cysts of the pancreas. Nov. khir. arkh. no.2:
73-74 '62. (MIRA 15:2)

1. Kiyevskiy nauchno-issledovatel'skiy rentgeno-radiologicheskiy
i onkologicheskiy institut.

(PANCREAS—DISEASES) (CYSTS)

ICECIA, J.

ICECIA, J. My record jumps. p. 7.

Vol. 11, No. 29, July 1955.

SYRZYMIATA POLSKA.

TECHNOLOGY

Warszawa, Poland

So: East European Accession, Vol. 5, No. 5, May 1 956

LOBODA, K.M.

Furniture manufacturers of the Ukraine improve their
production. Der.prom. 14 no.11:1-3 N '65.

(MIRA 18:11)

RODIONOV, V.M.; ANTOKOL'SKAYA, Zh.A.; CHUDINOVSKIKH, A.V.; LOBODA, L.A.

Preparative method of electrophoretic separation of blood proteins
in starch gel. Lab.delo 6 no.1:23-25 Ja-Fe '60. (MIRA 13:4)

1. Iz instituta biologicheskoy i meditsinskoy khimii AMN SSSR,
Moskva.

(BLOOD PROTEINS)

(ELECTROPHORESIS)

L 28441-66 EWT(m)/EWP(j)/T IJP(c) WW/RM
ACC NR: AP6017878 SOURCE CODE: UR/0062/66/000/005/0902/0908

AUTHOR: Kotlyarevskiy, I. L.; Zanina, A. S.; Shergina, S. I.; Loboda, L. I.

ORG: Institute of Chemical Kinetics and Combustion, Siberian Department, Academy of Sciences SSSR (Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Highly unsaturated polymers. Communication 16. Polyacetylene compounds, derivatives of di-, tri-phenylmethane and diphenylethane

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 5, 1966, 902-908

TOPIC TAGS: organic semiconductor, semiconducting polymer, heat resistant polymer, polyacetylene, polyarylene, oligomer

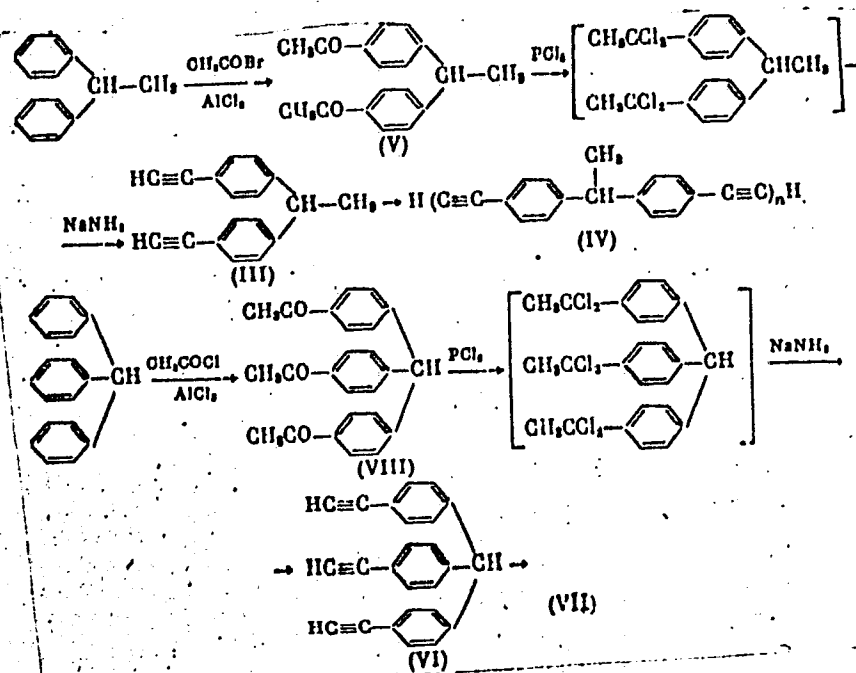
ABSTRACT: New highly unsaturated oligomers IV and VII (see below) having alternating arylene and diacetylene groups in the backbone were prepared which combine high heat resistance and solubility in some organic solvents. It is noted that such oligomers are of practical interest, even if their electrical conductivity proves to be low, for such applications as heat resistant dielectrics. Oligomers IV and VII were prepared as follows:

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UDC: 547.362+542.952

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ACC NR: AP6017878

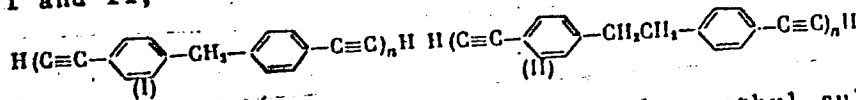


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ACC NR: AP6017878

Oligomers I and II;



were prepared earlier. Owing to the presence of a methyl substituent, oligomer IV, unlike I, was almost fully soluble in pyridine. Oligomer IV was obtained in the form of light-yellow films; it did not fuse up to 500C. but darkened at 340C. Oligomer VII had apparently a tridimensional network structure; a dark brown powder, it was much darker in color than I and IV. VII gave a narrow intense EPR signal, indicating the presence of conjugation despite the formal disruption of conjugation by the CH groups present between phenyl rings. A number of monomers, mono-, di-, and triacetylene derivatives of diphenyl-methane and -ethane were also prepared. [SM]

SUB CODE: 07/ SUBM DATE: 25Dec63/ ORIG REF: 002/ OTH REF: 001
 ATD PRESS: 3805

Card 3/3 Px

LOBODA, L. P., Doc Med Sci -- (diss) "Epileptic Syndromes
Following Gunshot Wounds of the Cerebrum (Clinical Picture and
Course in Late and Remote Periods)." Mos, 1957. 19 pp (Acad
Med Sci USSR), 200 copies (KL, 49-57, 115)

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PERESTYKIN, V.F., doktor biol.nauk; LOBODA, L.S.

New fungicide for powder mildew control in cucumbers. Khim. prom.
[Ukr.] no.1:49-51 Ja-Mr '65. (MIRA 13:4)

AFONIN, K.B.; BURTSEV, K.I.; BYSTROV, S.M.; VIHETS, G.B.; VODNEV, G.G.; VORONIN, A.S.; GEVLICH, A.S.; GRYAZNOV, N.S.; GUDIM, A.F.; GUSYATINSKIY, M.A.; DVORIN, S.S.; DIDENKO, V.Ye.; DMITRIYEV, M.M.; DOMDE, M.M.; DROGOBID, G.M.; ZHDANOV, G.I.; ZAGORUL'KO, A.I.; ZELENETSKIY, A.G.; IVASHCHENKO, Ya.N.; KAFTAN, S.I.; KVASHA, A.S.; KIREYEV, A.D.; KLISHEVSKIY, G.S.; KOZYREV, V.P.; KOLOBOV, V.N.; LGALOV, K.I.; LEYTES, V.A.; LERNER, B.Z.; LOBODA, M.S.; LUBINETS, I.A.; MANDRYKIN, I.I.; MUSTAFIN, F.A.; NEMIROVSKIY, N.Kh.; NEFEDOV, V.A.; OBUKHOVSKIY, Ya.M.; PRITSEV, M.A.; PETROV, I.D.; PODOROZHANSKIY, M.O.; POPOV, A.P.; RAK, A.I.; REVYAKIN, A.A.; ROZHKOVA, A.P.; ROZENGAUZ, D.A.; SAZONOV, S.A.; SIGALOV, M.B.; STOMAKHIN, Ya.B.; TARASOV, S.A.; FILIPPOV, B.S.; FRIDMAN, N.K.; FRISHBERG, V.D.; KHAR'KOVSKIY, K.V.; KHOLOPTSEV, V.P.; TSAREV, M.N.; TSOGLIN, M.E.; CHERNYI, I.I. CHERTOK, V.T.; SHELKOV, A.K.

Samiil Borisovich Bamme. Keks i khim. no. 6:64 '56.
(Bamme, Samuil Borisovich, 1910-1956)

(MLRA 9:10)

SOV/68-59-3-17/23

AUTHOR: Loboda, N.S.,

TITLE: Some New Forms of Acid Resisting Coatings (Novye vidy kisloutopornykh pokrytiy)

PERIODICAL: Koks i Khimiya, 1959, Nr 3, pp 58-59 (USSR)

ABSTRACT: Smelyanskiy Machine Building Works started the production of enamel tubes and apparatus, the applicability of which, for operation in corrosive media at 80-90°C, is discussed.

ASSOCIATION: Dnepropetrovskiy Sovnarkhoz (Dnepropetrovsk Sovnarkhoz)

Card 1/1

SOV/68-59-5-10/25

AUTHOR: Loboda, N.S.

TITLE: Development of the Chemical Industry in the Dnepropetrovsk Economic Region (Razvitiye khimicheskoy promyshlennosti v Dnepropetrovskom ekonomicheskoy rayone)

PERIODICAL: Koks i khimiya, 1959, Nr 5, pp 28-29 (USSR)

ABSTRACT: In the Dnepropetrovsk Sovnarkhoz a common directorate of the metallurgical and chemical industry was established. In this way the coking and the chemical industries are under the same direction, which has had a positive influence on the development of these two industries. Special stress was put on the utilisation of local raw materials and coking by-products in the production of plastics and synthetic fibres. A brief outline of proposed developments is given. Main points: research work on the production of thermo setting resins from raw and higher phenols; production of new plasticisers from naphthalene, toluene and formaldehyde; production of plastics from acetonaphthene, anthracene and phenanthrene with formaldehyde by the condensation and oxidation and hydrogenation methods; production of ditolymethane; studies of electrochemical oxidation of benzene;

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Development of the Chemical Industry in the Dnepropetrovsk Economic
Region

the production of terephthalic acid etc; production of
furfural from agricultural waste (experimental
installation is erected); a plant for the production of
chlorine is being designed; hydrochloric acid, produced
as a by-product in chlorination of saturated hydro-
carbons, will be used for the extraction of manganese
from tailings of manganese ore for subsequent production
of manganese free from carbon; a plant for the
production of ammonia from hydrogen from coke oven gas
and nitrogen from the oxygen plant with subsequent
manufacture of liquid fertilisers is being considered.

Card 2/2

ASSOCIATION: Dnepropetrovsk Sovnarkhoz

PLIT, I.G.; KUZNETSOV, Ye.G.; LOBODA, N.S.; SHEVCHENKO, A.I.

Investigation of the process of hydrogen sulfide removal from coke-oven gas by potassium solutions in a scrubber with a pulverizing-atomizing plate. Koks i khim. no.10:42-47 O '61.

(MIRA 15:1)

1. Dnepropetrovskiy khimiko-tehnologicheskii institut (for Plit). 2. Stalinskiy sovmarkhoz (for Kuznetsov). 3. Dnepropetrovskiy sovmarkhoz (for Loboda). 4. Yasinovskiy koksokhimi-cheskiy zavod (for Shevchenko).

(Hydrogen sulfide)

(Gas purification)

(Scrubber (Chemical technology))

LOBODA, N.S.

Coke and coal chemicals in the Dnieper Economic Region.
Koks i khim. no.1:3-5 '64. (MIRA 17:2)

1. Zamestitel' nachal'nika upravleniya chernoy metallurgii
Pridneprovskogo soveta narodnogo khozyaystva.

LC100', N. Ye.

Leboda, N. Ye. "The fine-fleeced sheep of Kirgiziya and breeding work with them,"
Trudy Kirgiz. nauch.-issled. in-ta zhivotno-vodstva, Issue 9, 1949, p.34-53

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

USSR / Farm Animals. Sheep and Goats.

Q-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 45213

Author : Loboda, N. Ye.

Inst : Not given

Title : The High-Producing Flock of the Kirgiz Fine-Wool Breed of Sheep.

Orig Pub : Ovtsevodstvo, 1957, No. 10, 16-20

Abstract : The article gives the characteristics of the Kirghiz fine-wool breed of sheep which was obtained through a complex three-breed crossing (Fat-rumped X Precoce X Caucasian) and through a further improvement by the Askaniye breed. The ewes are characterized by a high productivity and belong to the wool-meat type. The average live weight of rams is 115.2 kg., their wool yield is 12.4 kg. (6.2 kg. of pure fiber), and the performance of ewes is 65.2 kg. and 5.3 kg. (2.83 kg.), respectively. The wool is of staple structure,

Card 1/2

20

LOBODA, P.P., inzh.

Effect of low-frequency mechanical vibrations on the rate
of dissolving. Pishch. prom. no.2:140-145 '65.

(MIRA 18:11)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promysh-
lennosti.

Loboda, S.I.

AUTHORS: Kvachev, E.N. and Loboda, S.I. (Engineers) 100-4-12/16

TITLE: Mechanism for the prestressing of reinforcement of uniform profile by hydraulic method. (Ustanovka dlya uprochneniya armatury periodicheskogo profilya s gidravlicheskim privodom).

PERIODICAL: "Mekhanizatsiya Stroitel'stva" (Mechanisation of Construction), 1957, Vol.14, No.4, pp.26-27 (USSR).

ABSTRACT: This mechanism for tensioning of the reinforcement allows the operator to observe the progress of tensioning and the cessation of the cold flow of steel. The process is discontinued automatically when the predetermined stress is reached. The apparatus consists of rolled steel joists which form the base, which has fixed to one side adjustable anchors and to the other side a hydraulic cylinder with a detachable gripping mechanism. The latter comprises a base plate, 170 x 190 x 14 mm, with a 60 mm aperture, in which the body of the mechanism is fixed. The gripping cones are made of steel Mark Y-7. The hydraulic cylinder A-183 is used; it operates at a pressure of 40 to 50 kg/cm². The hydraulic action is brought into play through a suction unit which consists of: a hydraulic pump, ЛП12, which is identical to the one used in the excavator Э-505, an oil

1/2

Mechanism for the prestressing of reinforcement of uniform profile by hydraulic method. (Cont.)

100-4-12/16

2/2 tank, an hydraulic distributor similar to the one used for the automatic loader ЖБА-4000 . A diagram of tensioning of steel Mark Ct.5 shows that the cold flow ceases when a 2 to 2.5% elongation has been reached and further elongation takes place by increased tensioning. The hydraulic cylinder allows tensioning up to a length of 60 mm (original length of the bar = 11 m) which corresponds to 5.5% of the original length. Steel rods Mark Ct.5 and 25ГC with a diameter of up to 18 mm were tensioned. The capacity is 70 to 80 rods per hour. This work is carried out by one operative. The weight of the apparatus is 600 kg. The following points are criticised: bulkiness, complicated design, unreliable control of tensioning and the early wear of the screw adjustment.

There are 3 figures.

AVAILABLE:

KICHIGIN, A.F., dotsent; LOBODA, P.A., inzh.; SALTANOV, A.D., inzh.; YAREMA,
V.D., dotsent

Experimental design of the cutter of a stoping cutter-loader. Izv.
vys. ucheb. zav.; gor. zhur. no.11:91-94 '61. (MIRA 15:1)

1. Karagandinskiy politekhnicheskiy institut. Rekomendovana kafedroy
gornyykh mashin i rudnichnogo transporta.
(Mining machinery)

LOBODA, T.; ONOYKO, I.

Operation of motorbuses and taxicabs under public control. svt.-
transp. 40 no.2:8-9 F '62. (MIRA 15:2)

1. Ukrainskiy respublikanskiy sovet profsoyuzov.
(Motorbuses) (Taxicabs)

LOBODA, V., general-mayor

- Officers in the development of the armed forces of the U.S.S.R.
Voen.vest. 37 no.2:12-21 F '58. (MIRA 11:2)
(Russia--Armed forces)

KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk; LENSKIY, A.N., inzh.;
LOBODA, V.M., inzh.; BOL'SHAKOV, V.I., inzh.

Determination of optima conditions of reduction mill operations.
Trudy Inst.chern.met.AN URSR 16:70-77 '62. (MIRA 15:12)
(Rolling mills--Electromechanical analogies)

LOBODA, V.M., inzh.; CHUDNOVSKIY, V.S., inzh.

Electromagnetic drive for the cut-missing mechanism of
flying shears. Mekh. i avtom. proizvod. 19 no.5:27 My '65.
(MIRA 18:11)

LUGANSKIY, N.I.; LOBODA, Yu.I.

Conversion of unithiol in the body. Farm.i toks. 23 no.4:349-355
Jl-Ag '60. (MIRA 14:3)

1. Ukrainskiy nauchno-issledovatel'skiy sanitarno-khimicheskiy
institut.

(UNITHIOL)

1. LOBODANOV, N.S., KVACHADZE, N.I.
2. USSR (600)
4. Roads - Maintenance and Repair
7. Winter plane for automobile log roads. Les.prom. 12. ^{12/2,} 1952
^

9. Monthly List of Russian Accessions, Library of Congress, March, 1953. Unclassified.

LOBODEANU, Marcel, ing.

Using rheology for studying bitumen behavior. Rev transport 10
no.9&402-412 3'63

1. LCFCDIN, P.
2. USSR (600)
4. Petroleum industry
7. Improving the use of electric power in the petroleum industry. Za ekon. nat. no. 4. '52.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

LOBODIN, P.V.
IVANOV, Nikolay Vasil'yevich; MALYUTIN, Nikolay Kuz'mich; FLEYSHMAN, Abram L'vovich; BURSHTEYN, I.I., retsenzent; LOBODIN, P.V., retsenzent; MOROZOV, A.N., retsenzent; LYUBOVICH, Yu.O., kandidat ekonomicheskikh nauk, redaktor; TZMKIN, A.V., tedaktor izdatel'stva; UVAROVA, A.F., tekhnicheskij redaktor.

[Supply of materials and equipment in machinery manufacturing] Material'no-tekhnicheskoe snabzhenie v mashinostroenii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1956. 275 p. (MIRA 10:4)
(Machinery industry)

LOBODIN TV

19

FRANK I BOOK EXPLORATION 80/366

Reshchaya konferentsiya po problemam meteorologii Antarktiki, Moscow, 1959
Tseyly Zhibador (Theses of Reports at the Scientific Conference on Meteorological Problems in Antarctica, Moscow, 1959) Moscow, Gidrometizdat (Gosknyazh) 1959. NT p. 1,000 copies printed.

Ed.: G.O. Erizhaki; Tech. Ed.: I.M. Zarh.

Purpose: The publication is intended for meteorologists, particularly for those interested in the climatology of Antarctica.

Contents: This book contains summaries of thirty-five reports presented at the Scientific Conference on Meteorological Problems in Antarctica, held in Moscow, October 20 to 28, 1959. The summaries are arranged in four groups: (1) general problems of the geography of Antarctica; (2) atmospheric circulation; (3) radiation balance, heat balance, climate and special features of individual elements; (4) methods of observation and measurement. No personalities are mentioned. There are no references.

PART III. RADIATION BALANCE, HEAT BALANCE, CLIMATE, AND THE CONDITION OF INDIVIDUAL ELEMENTS

Boris, E.P. [Candidate of Geographical Sciences, Glavnaya geofizicheskaya observatoriya im. A.I. Voznyakova (Main Geophysical Observatory im. A.I. Voznyakov)] Radiation Balance of the Surface of the Snow in Antarctica 20

Boris, E.P. [Candidate of Physics and Mathematics, Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory)] Shortwave Radiation Balance in the Troposphere, and Albedo of the Underlying Surface at the Antarctic Slope and the Davis Sea According to the Results of Actinometric Observations From Aircraft 22

Boris, E.P. [Main Geophysical Observatory im. A.I. Voznyakov] Turbulent Heat and Humidity Exchange in the Air Layer Near the Ground in Antarctica 23

Bogachev, V.A. [Central Forecasting Institute] Climatic Zones of Eastern Antarctica 25

Bogachev, V.P. [Candidate of Geographical Sciences] and D.I. Stekhnovskiy [Central Forecasting Institute] Mean Monthly Fields of Air Pressure and Temperature Over Antarctica and the Southern Hemisphere 26

Bogachev, V.P. [Candidate of Geographical Sciences, Tsentrallyy Institut Meteorologii (Central Forecasting Institute)] Geophysical Basis for the Connection Between the Antarctic Low-Pressure Zone and the Belt of Antarctic Submarine Trenches 27

Cherov, A.N. [Institute of Applied Geophysics, AS USSR] Physical Causes of One Climatic Feature in the Interior Regions of Antarctica 28

Cherov, G.M. [State Oceanographic Institute] Characteristics of Downwinds (Shkvaly - Winds) in Antarctica 29

Chernikov, E.V. [Candidate of Geographical Sciences, Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy Institut (Scientific Research Institute on Arctic and Antarctic)] Special Features of the Relief of Eastern Antarctica in Relation to Weather Characteristics 30

LOBODIN, T.V. [Glavnaya geofizicheskaya observatoriya im. A.I. Voznyakova (Main Geophysical Observatory im. A.I. Voznyakov)] Investigation of the Electric Field 33

Fedorov, L.D. [Candidate of Geographical Sciences, Glavnaya geofizicheskaya observatoriya im. A.I. Voznyakova (Main Geophysical Observatory im. A.I. Voznyakov)] Conditions for the Formation of the Snow Cover in Antarctica 34

PHASE I BOOK EXPLOITATION

SOV/4316
SOV/2-S-97

Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy atmosfernogo elektrichestva (Problems in Atmospheric Electricity)
Leningrad, Gidrometeoizdat, 1960. 115 p. (Series: Its: Trudy, vyp. 97)
Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (Title page): I.M. Imyanitov, Candidate of Physics and Mathematics;
Ed. (Inside book): T.V. Ushakova; Tech. Ed.: N.V. Volkov.

PURPOSE: This publication is intended for meteorologists and scientists concerned with the problem of atmospheric electricity. The book can also be used by graduate students at hydrometeorological institutes and by university students studying physics of the atmosphere.

COVERAGE: This issue of the Transactions of the Main Geophysical Observatory im. A.I. Voyeykov contains works on problems in atmospheric electricity written from 1954 to 1958. Individual articles deal with the electrical phenomena associated with thunderstorms, clouds, rains, and fogs. Observational techniques

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Problems in Atmospheric Electricity

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and instruments used are described. No personalities are mentioned. References accompany individual articles.

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Problems in Atmospheric Electricity

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Filippov, A. Kh., and A.I. Tyutrin. Simplified Recording of
the Potential Gradient of the Atmospheric Electrical Field

104

Furman, A.M. Distribution of Light and Medium Ions in the
Atmosphere According to Their Mobility and Concentration

106

AVAILABLE: Library of Congress

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JA/dvm/mas
10-14-60

45106

S/531/62/000/136/001/007
A052/A101

AUTHORS: Imyanitov, I. M., Lobodin, T. V.

TITLE: Investigation of the electric structure of shower- and thunder-
clouds

JOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy.
no. 136, 1962. Atmosfernoye elektrichestvo, 3 - 20

TEXT: The results of more than a hundred measurements of electric field distribution near peaks of and underneath shower- and thunderclouds are discussed. The investigation aimed on the one hand at collecting data about the electric structure of shower- and thunderclouds and, on the other hand, at obtaining material necessary for refining the methods of these measurements. It was carried out by means of aircraft in the far-eastern regions during August-September 1959 by the State Scientific-Research Institute of Civil Aviation in cooperation with the Main Geophysical Observatory im. A. I. Voyeykov, Central Aerological Observatory and Central Institute of Weather Forecasts. Compared with the other principal

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Investigation of the electric structure

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A052/A101

methods of studying the electric macrostructure of shower- and thunder- clouds, the aircraft method, while maintaining their positive features, eliminates many of their shortcomings. An aircraft flying at a high speed enables to make measurements in a time much shorter than that necessary for the development of a cloud. Consecutive measurements near the same cloud enable one to determine the transformation of its electric structure. A special equipment can be installed on board aircraft, permitting the full allowance for the distortions of measured fields caused by the aircraft. By making several flights at different distances from a cloud or by making measurements by means of several planes at a time, the difficulties faced at ground measurements in determining the magnitude and distribution of main charges of a cloud can be overcome. By measuring from an aircraft the changes of the field connected with lightning strikes and following at the same time the cloud, the transformation of its electric structure can be studied in detail. The application of planes enables one to eliminate distortions introduced by the surface free charges, and also a considerable number of clouds can be investigated in a relatively short period of time. Another important advantage of the air-

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Investigation of the electric structure...

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A052/A101

craft method is the possibility of obtaining synchronous data relating both to the topography of clouds and to the aerological characteristics of atmosphere by means of radar, airborne meteorographs and other devices. The application of high-altitude high-speed planes like TY -104 (TU-104) widens the potentialities of the aircraft method and gives better results than those obtained by using transport planes like ЛИ-2 (LI-2) and ИЛ -14 (IL-14). On the other hand the aircraft measurements do not provide reliable information on the mesostructure of electric charges, and probably only a combination of aircraft and sounding methods will enable one to study both macro- and mesostructure of thunderclouds. The airborne equipment for measuring the field intensity is described; the field intensity pickup is adjusted so that the field produced by the plane's own charge will not affect the indications of the device. The investigation has shown that clouds in 50% cases carry a considerable excess charge of about 2 coulomb. This charge is located 6 - 7 km above the earth surface and the "mirror" effect (the opposite charges of raindrops and the surface field) may be ascribed to the action of this charge. The polarized clouds observed are charged to 60% positively and to 40% negatively. There are 9 figures and 4 tables.

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45108

S/531/62/000/136/005/007
A052/A101

85712-
AUTHOR: Lobodin, T. V.

TITLE: Snowstorm electricity

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy.
no. 136, 1962. Atmosfernoye elektrichestvo, 62 - 76

TEXT: Snowstorms are accompanied by complex and very intensive electric processes taking place at the collision, destruction and friction of ice crystals. The absence of commonly accepted methods, of a reliable inertia-less equipment and of comprehensive measurements of atmospheric electric characteristics has led to a state that at present the snowstorm electricity is insufficiently investigated. The article gives average monthly atmosphere electric potential gradients, volume charges and point discharge currents during snowstorms and drifts. It is based on observations made at the Mirnyy observatory (Antarctica) in the period January 1958 - January 1959. For measuring the atmosphere electric potential gradient the electrostatic fluxmeter of ГГО-type (GGO - the Main Geophysical

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Snowstorm electricity

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A052/A101

Observatory) was used. The measurements have shown that the sign and value of the gradient depend on a number of meteorological characteristics. The highest values are observed during storms without a snowfall and the lowest during snowdrifts. The recorded extreme values are: $E_{\min} = -9 \cdot 10^4$ v/m, $E_{\max} = 2.3 \cdot 10^4$ v/m. The value and sign of the gradient during snowstorms and drifts depends on the wind velocity, the amount, temperature and physical state of the driven snow. The gradient increases with the wind velocity, reaches maximum values at $v = 19$ m/sec, then decreases rapidly and reaches zero at $v = 25$ m/sec and maximum negative values at $v > 25$ m/sec. The gradient is proportional to the amount of the driven snow up to $v = 19$ m/sec and a change of the amount of snow of 2.5 g/m sec corresponds to the gradient change of 1 v/m. The gradient increases with the decrease of temperature, reaching maximum values between -20° and -25°C . It decreases with a further decrease of temperature reaching negative values at temperatures lower than -29°C . The connection between the gradient during snowstorms and the visibility is described by the equation $E = A - B \lg S$, where E is the gradient in v/m,

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AO52/A101

Snowstorm electricity

S the visibility in m, A = 4,500, B = 900. For measuring volume charges the Imyanitov's method was used. As a recording device an electrostatic fluxmeter was used, with a metal grid placed 1 m over the earth. The mean volume charge value is determined by the formula $f = \frac{E}{2Ah}$, where ρ is volume charge, E is potential gradient and h is the height of the grid over the earth. Calculations show that in the middle and lower parts of the meter layer about 30% of all volume charges are concentrated. To study the noise level conditioned by ice crystals hitting a metal surface (e.g. antenna) a 3 x 5 m metal rotary surface was installed connected by means of a coaxial cable with the input of a d.c. amplifier (20 cycles to 25 kilocycles pass-band). The recorded noise level at wind velocity of 12 - 22 m/sec was 0.3 - 1 mv per 1 cm². Point discharge currents were measured by a device developed at the Main Geophysical Observatory im. A. I. Voyeykova. The height of the point was 10 m. An electronic potentiometer was used for recording. At a constant wind velocity the point discharge current increases as the temperature decreases from 0 to - 20°C. At temperatures from - 20 to - 25°C it has small values of either sign and the maximum values correspond to temperatures below - 29°C. The

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dependence of the point discharge current on the wind velocity is described by the equation $i = i_0 [1 + \text{th} \delta(v - 23)]$, where i is the point discharge current in μa , $i_0 = 14 \mu\text{a}$, v is the wind velocity in m/sec and $\delta = 0.1$. At $v > 19$ m/sec there is no distinct relationship between the point discharge current at 10 m height and the potential gradient at the earth. There is no clear-cut relationship either between the point discharge current and volume charges in the lower meter layer. Both these values increase with the wind velocity up to 18 m/sec and then change in opposite directions. However, within 21 - 25 m/sec range these values can have even opposite signs which is connected with the concentrations of negative charges in the lower meter layer. The following dependences of the height of negative volume charge distribution (x), potential gradient at the earth (E_y) and the maximum positive potential gradient (E_z) are established. x increases from a few cm to 10 - 15 m as the wind velocity increases, E_y and E_z increase as the wind velocity increases to 19 m/sec, within 19 - 25 m/sec range E_y decreases and E_z increases, at over 25 m/sec E_y assumes negative values and E_z increases to a certain limit determined by the maximum carrying capacity of the snowstorm. In most cases during snowstorms a generation of positively charged particles takes place; the

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Snowstorm electricity

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A052/A101

atmosphere receives a positive charge and the earth surface is charged negatively. On the other hand, the conclusion can be drawn from the observations of point discharge currents that due to them the earth during snowstorms loses the negative charge. Thus during snowstorms a separation mechanism supplies the negative charge to the earth and corona currents take it away. To determine the difference between charge and discharge currents, is not possible as yet. However, it can be taken for granted that the vast stretches of the Arctic and Antarctic are the regions of earth charging. There are 7 figures and 7 tables.

Card 5/5

IMYANITOV, I.M.; LOBODIN, T.V.

Study of the electric structure of shower and thunderstorm clouds.
Trudy GGO no.136:3-20 '62. (MIRA 15:12)
(Atmospheric electricity)

LOBODIN, T.V.

Electricity of snowstorms. Trudy GGO no.136:62-77 '62. (MIRA 15:12)
(Antarctic regions—Snow—Electric properties)

ACCESSION NR: AT4015619

S/2972/63/000/005/0089/0099

AUTHOR: Lobodin, T. V.

TITLE: Results of electric measurements in the atmosphere over the oceans and in Antarctica.

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. II razdel programmy* MGG: Meteorologiya. Sbornik statey, no. 5, 1963. Meteorologicheskiye issledovaniya (Meteorological research), 89-99

TOPIC TAGS: atmospheric electricity, unitary variation, meteorology, Antarctica, atmospheric potential gradient, thunderstorm

ABSTRACT: The Main Geophysical Observatory investigated the characteristics of atmospheric electricity over the oceans and in Antarctica during the International Geophysical Year. The studies in ocean areas were made aboard the research vessels "Kooperatsiya", "Ob'" and "Mikhail Kalinin". The results of investigation of the unitary variation of the potential gradient, shown in Fig. 1 of Enclosure, confirm the conclusions drawn from investigations made by the Carnegie Institution 40 years ago. The slight difference in the time of onset of extremal values of field voltage of the measurements made in 1957-1959 and 1915-1921 is due to the redistribution of thunderstorm activity over

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ACCESSION NR: AT4015619

the entire globe. The effect of diurnal variations and meteorological elements (air temperature, relative humidity, wind velocity) on the distortion of the unitary wave is insignificant and for practical purposes can be neglected. Ramakrishnan's experimental data (Indian J. Meteorol. and Geophysics, 1955, 1, p.171) are used to calculate the changes of world area covered by thunderstorms during a 24-hour period and the changes of this area for the Carnegie Institution observations; these changes are shown in Fig. 2 of Enclosure. Changes of unitary variation are caused by thunderstorm activity. Measurements of electric characteristics in Antarctica gave the dependence of the potential gradient on wind velocity during the wind transport of snow, diurnal changes of the potential gradient and annual changes in volume charge, as shown in Figures 3 and 4 of Enclosure. Orig. art. has: 10 figures and 2 formulas.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

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ACCESSION NR: AT4024451

S/3010/63/000/013/0034/0037

AUTHOR: Lobodin, T. V.

TITLE: Reasons for the annual variation of the potential gradient in the atmospheric electric field

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. Geofizicheskiy byulleten', no. 13, 1963, 34-37

TOPIC TAGS: meteorology, atmospheric electricity, atmospheric potential gradient, atmospheric unitary variation

ABSTRACT: A new attempt is made to explain the annual variation in the strength of the atmospheric electric field. At present, the diurnal unitary variation of E is attributed to the influence of thunderstorm activity, and it has been suggested that the annual unitary variation has the same cause. This has been studied by the author, who used Ramakrishnan's data (Ind. J. Meteor., Geoph., 1, 1955). The area of the globe occupied by thunderstorms by season was determined; Fig. 1 of the Enclosure compares the annual variation E (curve 1) and the area on the earth occupied by thunderstorms (curve 2). Curves 1 and 2 not only are not parallel, but are in antiphase. Thunderstorm activity therefore does not determine the annual variation E and probably is not the only factor maintaining a positive

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charge of the earth. Possible causes can be local variations in the electrical conductivity λ and volume charge ρ of the atmosphere; it is demonstrated, however, that neither of these factors can be responsible. The literature is reviewed in an effort to explain the phenomenon; particular attention is given to the system of generation of volume charges and the structure of clouds of different genera. It is noted that in the past investigators have failed to take into account that thunderstorm clouds are not all positively charged at the top and negatively charged at the bottom. The author does not solve the problem; the principal contribution is emphasis on the fact that the thunderstorm mechanism is not solely responsible for the unitary variation, nor are local variations in λ and ρ . Orig. art. has: 1 figure and 1 formula.

ASSOCIATION: MEZH DUVEDOMSTVENNYY GEOFIZICHESKIY KOMITET AN SSSR (Interdepartmental Geophysical Committee, AN SSSR)

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SUB CODE: ES

NO REF SOV: 011

OTHER: 009

Card 2/3

ACCESSION NR: AT4024451

ENCLOSURE: 01

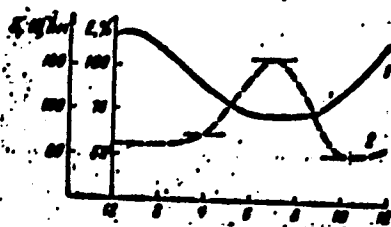


Fig. 1. Annual variation of potential gradient (1) and of area occupied by thunderstorms on earth (2).

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ACCESSION NR: AT4011514

S/2531/63/000/146/0036/0038

AUTHOR: Lobodin, T. V.

TITLE: The variation of the atmospheric electrical potential gradient at Mirnyy

SOURCE: Leningrad. Glavn. geofiz. observatoriya. Trudy*, no. 146, 1963.
Atmosfernoye elektrichestvo, 36-38

TOPIC TAGS: meteorology, atmospheric electricity, atmospheric potential gradient,
antarctic meteorology, wind profile, temperature profile

ABSTRACT: The author gives the results of observations of the variation of the atmospheric electrical potential gradient E made at the South Pole observatory at Mirnyy during the IGY (1958). These observations embraced a total of 81 days. The E readings were made on an electrostatic fluxmeter, designed in the Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory), with tape recording by means of an automatic electronic potentiometer. The uniform and even floor surface, the absence of open ground, and radioactive contamination of the soil in Antarctica explain why an essential role in the diurnal variations of the potential gradient is played by unitary changes, the wind and temperature configuration, cloud formations, and precipitation. Curves are given to illustrate the variations of E for the different months of the year. The diurnal behavior of E for the year
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ACCESSION NR: AT4011514

was obtained by a weighted summing of all the monthly curves, with all curves rounded off according to a sliding-hourly-average formula. Diurnal variations of temperature, relative humidity, and wind velocity for 81 days are tabulated. A general curve for the May-October period is also shown. All the curves show a clearly expressed maximum at 1800-2000 hours and an indistinct minimum at 0600-1200 hours Greenwich time. The coincidence of the sum curve of unitary variation with curves obtained by the author in over-ocean readings confirms the shift in the onset of minimal E values toward 0700-1100 hours, in comparison with previously obtained data. Recalling that it has been claimed that a redistribution in thunderstorm activity over the world is taking place, the author notes that, if this hypothesis be true, then the correlation factor k_1 of E variations, obtained over the oceans in 1957-1959 and at Mirnyy, should be greater than the correlation factor k_2 , derived in readings over the oceans in the 1916 - 1921 period and at Mirnyy. Calculations for these factors give the following results: $k_1 = 86%$, $k_2 = 81%$; thus, it may be affirmed that at the present time the unitary variation of E has, in fact, somewhat changed. The close values for the amplitudes of the unitary variation of E for the oceans and the polar regions of the northern and southern hemispheres (on the average - 44 volts/meter) indicate, in the opinion of the author, a stable diurnal change in the factors which determine the presence of a unitary variation of E. It should be noted that close amplitude values for the unitary E variation are obtained only for a large number of observation days.

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ACCESSION NR: AT4011514

This may have some relation to the constancy of the yearly-average diurnal amplitudes of areas of thunderstorm activity around the world. Original article has: 1 table and 1 figure.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00

DATE ACQ: 20Feb64

ENCL: 01

SUB CODE: AS

NO REF SOV: 005

OTHER: 004

Card 3/43

ACCESSION NR: AT4024452

S/3010/63/000/013/0038/0040

AUTHOR: Lobodin, T. V.

TITLE: Relationship between the strength of the electric field in the atmosphere and auroras

SOURCE: AN SSSR. Mezhdudomstvennyy geofizicheskiy komitet. Geofizicheskiy byulleten', no. 13, 1963, 38-40

TOPIC TAGS: meteorology, atmospheric electricity, atmospheric electric field, aurora, atmospheric phenomenon, atmospheric unitary variation, atmospheric volume charge

ABSTRACT: Observations on the strength of the atmospheric electric field were made in Antarctica in 1958 using an electrostatic fluxmeter. Diurnal and annual unitary variations of E were determined and the behavior of the electric field during auroras was studied. The conclusions concerning the relationship between auroras and the electric field are based on 81 hours of continuous observations. Study of the relationship required a comparison of observations made in the Arctic and Antarctic. It was found that when there is an increase of E during auroras in Antarctica there is a corresponding decrease of E in the Arctic; auroras behave as a positive volume charge in the southern hemisphere and as a negative volume charge in the northern hemisphere.

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ACCESSION NR: AT4024452

in the northern hemisphere. Fig. 1 of the Enclosure shows the change of E during auroras at Mirnyy. A problem arises because the amplitudes of the diurnal and annual unitary variations are approximately the same as the change of E at the time of auroras. Corrections therefore must be made to compensate for this factor, although no correction for the annual unitary variation is required if the value of E at the time of auroras is compared with the values several hours before their onset and after their disappearance. The importance of this correction is shown in Fig. 1 of the Enclosure. The world maximum of the unitary variation coincides approximately with the maximum frequency of occurrence of auroras; therefore, the maximum correction is for hours with auroras; it is shown that the correction for unitary variation of E is about 60% of the change of E. An accompanying table gives numerical values of the corrections for diurnal unitary variation E. Orig. art. has: 1 formula, 1 figure and 1 table.

ASSOCIATION: MEZHDUVEDOMSTVENNYY GEOFIZICHESKIY KOMITET AN SSSR (Interdepartmental Geophysical Committee)

SUBMITTED: 00

DATE ACQ: 16Apr64

ENCL: 01

SUB CODE: ES

NO REF SOV: 006

OTHER: 004

Card 2/3

ENCLOSURE: 01

ACCESSION NR: AT4024452

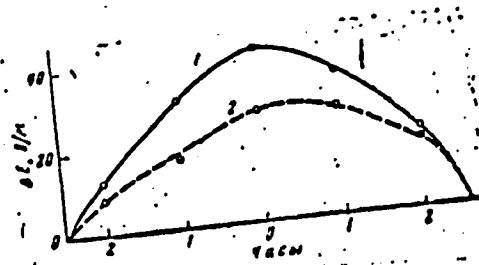


Fig. 1. Change in strength of the atmospheric electric field during auroras. 1 - without correction for diurnal unitary variation; 2 - with correction for unitary variation taken into account. (Abscissa = time in hours before and after the aurora.)

Card 3/3

IMYANITOV, I.M.; LOBODIN, T.V.

Inhomogeneity zones in thunderclouds. Trudy GGO no.157:3-8
'64 (MIRA 17:8)

LOBODIN, T.V.

Relation between the unitary variation in the atmospheric
electric potential gradient and thunderstorms. Geofiz.
biul. no.15:49-51 '65. (MIRA 18:11)

ACCESSION NR: AT5019955

177-00067-0071

AUTHOR: Lobodin, T. V.

FILE: Distance variations in the level of industrial radio interference

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Izvdy, no. 113, 1963.
Atmosfernoye elektrichestvo (Atmospheric electricity), 69-3.

INDEX TAGS: industrial radio interference, radio interference, long wave radio interference

ABSTRACT: In an investigation of industrial radio interference, with particular attention to the long wave length region, the author utilized a low-frequency field intensity recorder with a 3 mv/m—30 v/m (peak or mean square) range at 0.35—0.60 mc and 10 kg. The 210 measurements covered interferences from high-voltage power lines, transformer substations, chemical enterprises, saw frames, cement, concrete, and brick factories, an ionospheric station, and electrical power lines. The results of all the tests lie within the region bounded by the curves

$$E = E_0 e^{-0.61 S}, \quad E = E_0 e^{-0.33 S}$$

where S is in meters. Orig. art. has: 4 formulas, 1 figure, and 1 table. [08]
Card 1/2

LOBODIN, T.A.

Effect of albedo of nonhomogeneous origin on the earth's
charge. Trudy GGO no.175:80-84 '75.

(MIRA 18:8)

ACC NR: AT7001921

SOURCE CODE: UR/3010/66/000/017/0059/0062

AUTHOR: Lobodin, T. V.

ORG: none

TITLE: Change in amplitudes of leaders of lightning discharges with distance

SOURCE: AN SSSR. Mezhdudomstvennyy geofizicheskiy komitet. Geofizicheskiy byulleten', no. 17, 1966, 59-62

TOPIC TAGS: lightning, electric discharge, discharge amplitude

ABSTRACT: On the basis of experimental data the author determines the character of the change of the amplitude values of a leader with distance. Construction of the curves of the ratio of the lightning discharge amplitude to the maximal amplitude of the leader preceding a given discharge and to the average amplitude of all leaders of this discharge revealed that they read parallel to one another. This indicated a proportionality between the amplitude of the discharge and the maximal and average amplitudes of the leader. This ratio was found to increase with distance to the discharge. This indicated that the attenuation of the amplitude of the discharge is less than the amplitude of the leader. The difference in the attenuation of the discharge and leader amplitudes increased with distance. The maximal and average amplitudes of the leaders decreased with distance in proportion to $r^{-3/2}$. An advantage of determining the leader amplitude as a function of distance with respect

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ACC NR: AT7001921

to the discharge and leader ratio is that it is free from errors associated with the calibration and operating stability of the equipment employed. A check of the character of the decrease of the leader amplitude with distance by two other methods yielded a good agreement of results, which indicated the absence of systematic errors in the calculations and measurements. Orig. art. has: 2 figures.

SUB CODE: 04/ SUMM DATE: none

Card

2/2

TESLYA, A.G.; LOBODIN, V.A.

Introducing a filter sampler. Razved. i okh. nedr 30 no.2:
54-56 F '64. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii
i inzhenernoy geologii (for Teslya). 2. Krasnodarskaya kom-
pleksnaya geologicheskaya ekspeditsiya (for Lobodin).

L 38155-66 EWT(d)

SOURCE CODE: UR/0413/66/000/013/0092/0092 4/1

ACC NR: AP6025640

INVENTOR: Gryts'kiv, I. V.; Litvinov, I. V.; Lobodin, V. M.

ORG: none

TITLE: Airplane cloud-transparency meter. Class 42, No. 183440

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 92

TOPIC TAGS: airborne photoelectric detection, aircraft guidance equipment, aircraft flight instrument

ABSTRACT: An Author Certificate has been issued for an airplane cloud-transparency meter consisting of a light-beam modulator spun by an electric motor, an optical

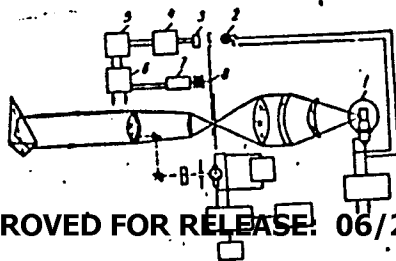


Fig. 1. Airplane cloud-transparency meter

- 1 - Main illuminator; 2 - additional illuminator; 3 - photoresistance; 4 - photocurrent amplifier; 5 - detector; 6 - direct-current amplifier; 7 - electric motor; 8 - modulator.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000930330001-2"

UDC: 551.508.92

L 38155-66

ACC NR: AP6025640

system, a reflector, a measuring photocell, a recording device, and a power supply (see Fig. 1). In order to obtain direct measurements of a certain parameter, in the illuminator circuit is an additional illuminator, the light beam from which is detected by a photoresistor connected through a photocurrent amplifier to the frequency-phase-detector input which, through the power amplifier, maintains a constant rotational speed of the light-beam-modulator's electric motor. Orig. art. [KT]
has: 1 figure.

SUB CODE: Q,09,17/ SUBM DATE: 21Apr65/ ATD PRESS: 5047

LOBODIN, V.P.

Testing quartz oscillators. Izv. tekhn. no. 5:46 My '60. (MIRA 14:5)

(Oscillators, Crystal-Testing)

LOBODYUCHENKO, A. F. and FEDOROVSKIY, A. A.

"An Experiment on the Medical Use of Heterogenic Serums in Bloodshed and other Surgical Diseases," Trudy VII S'ezda Khirurgov USSR (Ukrainian Socialist Soviet Republic), Kiev, 1955.

LO CDYUCHENKO, A. F.

LO CDYUCHENKO, A. F.: "Experience in the therapeutic use of PE-1 blood substitute in the surgical clinic." Khar'kov Medical Inst. Khar'kov, 1956. (Dissertation for the Degree of Candidate in Medical Sciences).

Source: Knizhnaya letopis' No. 2 1956 Moscow

LOBODYUCHENKO, A.F.

FEDOROVSKIY, A.A., professor (Kiyev, ul. Kudryavskaya, 8a, kv.1);
~~LOBODYUCHENKO, A.F., dotsent~~

Some results and prospects for the use of BK-8 blood substitute for
transfusions in a surgical clinic. Nov.khir.arkh. no.2:3-6 Mr-Apr '57.
(MLBA 10:8)

1. Kafedra khirurgii pediatricheskogo fakul'teta (zav. - prof. A.A.
Fedorovskiy) Kiyevskogo meditsinskogo instituta
(BLOOD PLASMA SUBSTITUTES)

ZEMSKOV, N.H., dots.; LOBODYUCHENKO, A.F., dots.

Professor A.A. Fedorovskii. Khirurgiia 35 no.1:145 Ja '59.
(MIRA 12:2)

(BIOGRAPHIES,
Fedorovskii, Aleksei A (Rus))

I.OBODYUK, L.A.

Therapeutic effect of small doses of antireticular cytotoxic
serum in influenzal lesions of the retina and the optic nerve.
Trudy 1-go MMI 32:97-106 '64. (MIRA 18:5)

UMANSKIY, M.A.; TRESHCHINSKIY, A.I.; LOBODYUK, M.S. (Kiyev).

Use of protamine sulfate in surgery with artificail blood
circulation. Vrach. delo no.11:133 N'63 (MIRA 16:12)

1. Klinika torakal'noy khirurgii (zav.-chlen-korrespondent
AMN-SSSR, prof. N.M.Amosov) Ukrainskogo Instituta tuberku-
leza i grudnoy khirurgii.

KOZAK, V.A. (Kiyev, 1, Kreshchatik, d.21, kv.64); LOBCHUK, P.B. [deceased];
MIKHAYLOVA, S.I. [deceased]; GORYNSKAYA, S.V.; MITCHELL, P.T.

Use of a high-pressure chamber in the therapy of hypoxic states.
Grud. khir. 6 no.6:3-10 N-D '64. (MIRA 18:7)

1. Otdel biokibernetiki (zav. - chlen-korrespondent AMN SSSR
N.N. Amosov) Instituta kibernetiki (direktor - akademik V.M.
Glushkov) AN UkrSSR, Kiyev.

35283
S/601/61/000/013/015/017
D207/D302

18.1440
AUTHORS:

Lobodyuk, V. A. and Khandros, L. G.

TITLE:

The form of martensitic crystals and the orientation of phase boundaries in the copper-aluminum-nickel and copper-aluminum manganese alloys

SOURCE:

Akademiya nauk Ukrayins'koyi RSR. Instytut metalofyzyky. Sbornik nauchnykh robot, no. 13, 1961. Voprosy fiziki metallov i metallovedeniya, 147-157

TEXT: The authors determined the form and orientation of martensitic inclusions in Cu + 14.4% Al + 4.7% Ni and Cu + 14.4% Al + 3% In alloys. Alloy monocrystals were cut into rectangular plates of 1.5 x 3 mm cross-section, quenched from 900°C and polished at 60 - 70°C. This treatment produced large martensitic grains which were examined with a PKCO (RKSO) x-ray camera, using Mo radiation and the Laue back-reflection technique. Martensitic grains were wedge-shaped in Cu-Al-Ni monocrystals and their 'midrib'

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X

The form of martensitic ...

S/601/61/000/013/015/017
D207/D302

planes were close to $\{110\}_\beta$; the planes of the grain boundaries usually coincided with the $\{331\}_\beta$ plane, but there were often large deviations from this orientation. In Cu-Al-Mn monocrystals the habit planes of martensitic grains had poles concentrated around a point which was 5 - 6° of arc from the $\{133\}_\beta$ plane. The considerable scatter of the habit-plane poles was due to stresses during crystal growth. There are 9 figures, 4 tables and 11 references: 10 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: L. C. Chang and T. A. Read, Trans. AIME, 189, (Jan., 1951).

SUBMITTED: September 12, 1960

Card 2/2

KURDYUMOV, G.V.; LOBODYUK, V.A.; KHANDROS, L.G.

Form of martensite crystals and the orientation of the interphase boundaries in the alloy Cu-Al-Ni. Kristallografiia 6 no.2:210-217
Mr-Ap '61. (MIRA 14:9)

1. Institut metallofiziki AN USSR.
(Martensite crystals) (Phase rule and equilibrium)
(Copper-aluminum-nickel alloys)

S/126/62/014/001/013/018
E111/E135

AUTHORS: Lobodyuk, V.A., and Khandros, L.G.
TITLE: Changes in the state of the β -phase during
martensitic transformation in a Cu-Al-Ni alloy
PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.1, 1962,
133-135

TEXT: In previous work one of the authors reported on fragmentation and recombination of crystals during martensite transformation and heating. In the present work the behaviour of a single β -phase grain in a Cu-Al-Ni alloy with 14.4% Al and 4.7% Ni (according to the melting charge composition) has been studied, using the Laue back-reflection method. Patterns were obtained from a given martensite crystal during forward and reverse transformations; the camera being provided with a small heater. The final β -phase crystal consisted of six fragments at a certain angle to each other. Further slight heating led to rotation of these fragments into their original positions. The fact that heating by only 10-12 °C is sufficient for restoring
Card 1/2

Changes in the state of the ...

S/126/62/014/001/013/018
E111/E135

the original β -crystal indicates that the low-angle boundaries
between fragments move easily.
There are 3 figures.

ASSOCIATION: Institut metallofiziki AN USSR
(Institute of Physics of Metals, AS Ukr.SSR)

SUBMITTED: January 19, 1962

1

Card 2/2

LOBODYUK, V.A.; KHANDROS, L.G.

Crystallographic correlations in the Cu-Sn alloy. Sbor. nauch.
rab. Inst. metallofiz. AN URSR no.17:170-173 '63. (MIRA 17:3)

LOBODYUK, V.A.; KHANDROS, L.G.

Reorientation of the lattice of the martensite phase during transformation. Dokl. AN SSSR 153 no.4:807-809 D '63.

(MIRA 17:1)

1. Institut metallofiziki AN UkrSSR. Predstavleno akademikom G.V. Kurdyumovym.

LOBODYUK, V.A.; KHANDROS, L.G.

Changes in the state of crystals of the initial and martensite phases during direct and reverse transformations. Fiz. met. i metalloved. 18 no.3:409-415 3 '64. (MIRA 17:11)

1. Institut metallofiziki AN UkrSSR.

LOBODYUK, V.A.; KHANDROS, L.G.

Determination of a macroscopic shift during martensite transformations in Cu-Al-Ni alloys. Fiz. met. i metalloved. 17 no.6: 936-938 Je '64. (MIRA 17:8)

L. Institut metallofiziki AN UkrSSR.

L 55122-65 EWT(l)/EWT(m)/EWP(t)/T/EEC(b)-2/EWP(z)/EWP(b./EMA(c) P1-l/Pad
IJP(c) JD/HW/GG

ACCESSION NR: A25317516

DR/0126/64/018/004/0573/0579

AUTHOR: Lobodyuk, V. A.; Khandros, L. G.

39
38
8

TITLE: Reorientation of gamma'-phase crystals during martensite transformation

SOURCE: Fizika metallov i metallovedeniye, vol. 18, no. 4, 1964, 573-579

TOPIC TAGS: martensitic steel, crystal, physical metallurgy

Abstract: In the β_2 - γ' transformation process in a Cu-Al-Ni alloy, wedging and mutual interaction of martensite crystals are observed as well as the formation of wedge-shaped layers on previously formed crystals. It was established by the back reflection Laue method that reorientation of the crystal lattice takes place in all these cases. The whole process takes place in reverse order during heating.

For carrying out the experiments, a Cu-Al-Ni alloy was chosen (14.4% Al; 4.7% Ni in the charge). The ingot was annealed for 10 hours at 890°C and rectangular specimens 0.6-0.8 cm thick were cut off. In order to obtain large martensite phase crystals, the samples were annealed in a microfurnace, after a minor deformation, for 12 hours at 890°. They were then quenched in a 10% aqueous solution of NaCl, ground and polished at 600 (above the

Card 1/2